



# Wireless Hot Spot Gateway

**WAS-103R**  
*Quick Installation Guide*

**Version 1.01**



## Preface

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Thanks to customers' opinions on experiences of selling WAS-102R for several years. Due to global economy crisis and after discussing with some VIP customers, we are going to release a Light-weight but feature packed Wireless HotSpot Gateway by using the industrial standard hardware platform.

PheeNet WAS-103R is a most economical Wireless HotSpot Gateway, and target for small venue, mini-size store with very user-friendly operation.

Before, the business owner can make the money from the Wireless Internet Access providing. For the time being, the Wireless Internet Access is almost a kind of value added service. By take advantage of PheeNet WAS-103R, the front desk operator does not have to have enough IT technology, just identify the customer grade, offer the appropriate Pre-set ticket, and then charge the money (or not).

In the mean time, the business owner or front desk operator will totally get rid of the hassle and time wasting on trouble shooting of Wireless HotSpot Gateway.

With PheeNet WAS-103R, hotspot service is getting to a new generation, easier, more convenient, and more user-friendly.

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## Package Contents

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- WAS-103R x 1
- Ethernet Cable x 1
- 5dBi Omni Antenna x 2
- Quick Installation Guide (QIG) x 1
- CD-ROM (with User Manual and QIG) x 1
- Power Adapter (DC 12V) x 1



*It is highly recommended to use all the supplies in the package instead of substituting any components by other suppliers to guarantee best performance.*

## System Overview

### Front Panel



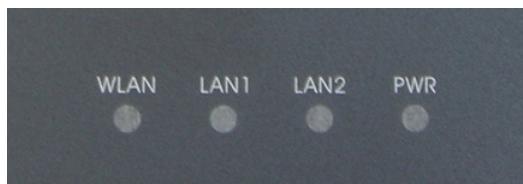
1. 12V DC Injector : Attach the power cable here.
2. Reset Button :
  - Press and hold the Reset button for 2 seconds to restart system. The LED except Power indicator will be off before restarting.
  - Press and hold the Reset button for more than 10 seconds to reset the system to default configurations.
3. LAN1/ LAN2 (PoE) :
  - In AP Mode :  
The LAN1/LAN2 port are for connection to external network or POE switch.
  - In Hotspot Mode :  
The clients device with **VLAN ID** connect to LAN1 or LAN2 port. The port will be used by LAN port. Administrator can access the WMI (Web Management Interface) via this port  
LAN1 or LAN2 port is connected to external network. For example, it may connect to the ATU-Router of an ADSL, or the port of a Cable Modem. The port will be used by WAN port.
4. Console : The Serial RS-232 DB9 cable attaches here.

### Rear Panel



- WAS-103R supports 1 RF Interface with 2 SMA connectors for Antenna connection.

### LED Panel



1. WLAN : Green LED FLASH indicates Wireless ON, and FLASH quickly indicates Wireless Transmit quickly.
2. LAN1/LAN2 : Green LED ON indicates connection, OFF indicates no connection, and FLASH indicates The Port Transmit
3. PWR : Green LED ON indicates power on, and OFF indicates power off.

## Hardware Installation

Please follow the steps mentioned below to install the hardware of WAS-103R

### 1. Place the WAS-103R at a best location.

The best location for WAS-103R is usually at the center of your wireless network.

### 2. Connect WAS-103R to your outbound network device.

Connect one end of the **Ethernet cable** to the LAN1 port of WAS-103R on the front panel. On your environment, connect the other end of the cable to the external Internet . The LAN1 LED indicator should be ON to indicate a proper connection.

### 3. Connect WAS-103R to your network device.

Connect one end of the **Ethernet cable** the LAN2 port of WAS-103R on the front panel. Connect the other end of cable to a PC for configuring the system. The LAN2 LED indicator should be ON to indicate a proper connection.

### 4. There are two ways to supply power over to WAS-103R

I. Connect the **DC power adapter** to the WAS-103R power socket one the front panel.



*Please only use the power adapter supplied with the WAS-103R package. Using a different power adapter may damage this system*

II. WAS-103R is capable of transmitting DC current via its LAN1/LAN2 PoE port. Connect an IEEE 802.3af-compliant PSE device, e.g. A PoE Switch, to the LAN1/LAN2 port of WAS-103R with the Ethernet cable.

Now, the hardware installation is completed.



*To double verify the wired connection between WAS-103R and your switch/router/hub, please check the LED status indication of these network devices.*

## Getting Started

WAS-103R supports web-based configuration. Upon the completion of hardware installation, WAS-103R can be configured through a PC/NB by using its web browser such as Internet Explorer version 6.0.

- Default IP Address : 192.168.2.254
- Default IP Netmask : 255.255.255.0
- Default User Name and Password : admin/default

### Step

#### 1. IP Segment Set-up for Administrator's PC

Set the IP segment of the administrator's computer to be in the same range as WAS-103R for accessing the system. Do not duplicate the IP Address used here with IP Address of WAS-103R or any other device within the network

#### Example of Segment :

The value for underlined area can be changed as desired; the valid range is 1 ~ 254. However, 254 shall be avoided as it is already used by WAS-103R; use 10 as an example here.

- IP Address : 192.168.2.10
- IP Netmask : 255.255.255.0

#### 2. Launch Web Browser

Launch as web browser to access the web management interface of system by entering the default IP Address, **<http://192.168.2.254>**, in the URL field, and then press **Enter**.



#### 3. System Login

The system manager Login Page then appears. Enter "**admin**" as **User name** and "**default**" as **Password**, and then click OK to login to the system.



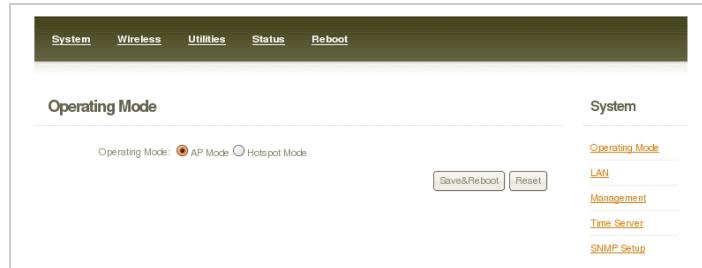
#### 4. Login Success

When administrator login success, the WAS-103R web management UI should be viewed at the **Status** section under the **System Overview** page

System Overview		Status
System Name: WAS-103R Operating Mode: AP mode Firmware Version: Cen-HS-G2 V0.0.6 Beta Version Firmware Date: 2009-07-29 10:57:55 Location: default Description: Indoor Wi-Fi Hotspot Gateway System Time: 197001/01 Thu 00:07:07 System Up Time: 07:07		<a href="#">Overview</a> <a href="#">Wireless Status</a> <a href="#">WDS List</a> <a href="#">Event Log</a>
LAN Information		MAC Address: 00:00:00:22:22:22

# Quick Setup

WAS-103R is a two mode system which can be configured either as a Hotspot gateway or an access point as desired. This section provides a step-by-step configuration procedure for basic installation on AP Mode and Hotspot Mode



## ➤ Setup In AP Mode

### Step 1 : Mode Confirmation

Ensure the Operating Mode is currently at AP mode; the web management UI can be viewed at the **Status** section under the **System Overview** page.



### Step 2 : Change Password

Click **System -> Management** and then **Admin Configuration** page appears.

Enter a new administrator's password in the *New Password* field, and re-enter it again in the *Check New Password*(a maximum of 32 characters and no space allowed).

Click **Save** button to save the settings.

**For security concern, it is strongly recommended to change the administrator's password**

### Admin Configuration

#### System Information

System Name: WAS-103R  
Description: Indoor Wi-Fi Hotspot Gateway  
Location: default

#### Admin Password

New Password: (If you don't want to change, don't type anything)

Check New Password:

#### Admin Login Methods

<input checked="" type="checkbox"/> Enable HTTP	Port: <input type="text" value="80"/> (Default:80)
<input type="checkbox"/> Enable HTTPS	Port: <input type="text" value="443"/> (Default:443) <input type="button" value="UploadKey"/>
<input checked="" type="checkbox"/> Enable Telnet	Port: <input type="text" value="23"/> (Default:23)
<input type="checkbox"/> Enable SSH	Port: <input type="text" value="22"/> (Default:22) <input type="button" value="GenerateKey"/>

#### Display the host key footprint:

```
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAgwcCEbsCvI
```

### Step 3 : LAN Interface

Click **System -> LAN**, and then **Network Setup** page appears.

Enable "Static IP" and "DNS", and enter the related informations in the field marked with red asterisks. Click **Save** button to save the settings.

### Network Setup

#### LAN IP

Mode:  Static IP  Dynamic IP

#### Static IP

IP Address:  .  .  .  \*  
IP Netmask:  .  .  .  \*  
IP Gateway:  .  .  .  \*

#### DNS

DNS:  No Default DNS Server  Specify DNS Server IP

Primary:  .  .  .  \*

Secondary:  .  .  .

#### Spanning Tree Protocol

STP:  Enable  Disable

### Step 4 : Time Zone settings

Click **System -> Time Server**, and then **Time Server Setup** page appears.

Select an appropriate time zone from the *Time Zone* drop-down list to set up the system time.

Click **Save** button to save the settings.

**Time Server**

Please set your time and time zone in this page

**Time Server Setting**

Local Time : 1970/01/01 Thu 00:27:03

**Setup Time Use NTP**

Default NTP Server:  (optional)

Time Zone:

Daylight saving time:



For security concern, it is strongly recommended to set up Security Type with WPA-SPK or WPA2-PSK for Virtual AP

## Step 5 : Wireless Interface

- **Wireless General Setup**

Click **Wireless -> General Setup**, and then **Wireless General Setup** page appears.

Select desired wireless **Band**, **Transmit Rate** and **Channel** for wireless interface.

Click **Save** button to save the settings.

**Wireless General Setup**

**General Setup**

MAC address : 00:11:ab:66:00:02

Band Mode:

Transmit Rate Control:

Country:

Channel:

Tx Power:

## Step 6 : Restart System

Click **Reboot** to activate all settings configured so far. The Reboot message will appear on the screen during the restarting process.

### Restart

System will restart after  seconds...



Please do not interrupt the system until the System Overview Page appears.

## Congratulation !

The AP mode is now successfully configured.

- **Virtual AP Setup**

Click **Wireless -> Virtual AP Setup**, and then **VAP Setup** page appears. Click "Edit" on VAP0 of Virtual AP List, and then **VAP0 Configuration** page appears.

Select desired **ESSID** and **Security Type** for VAP0.

Click **Save** button to save the settings.

**VAP0 Configuration**

**General**

ESSID :

Hidden SSID :  Enable  Disable

Client Isolation :  Enable  Disable

WMM :  Enable  Disable

IAPP Support :  Enable  Disable

Maximum Clients :  (1 - 32, default 32)

VLAN ID :  Enable  Disable  (0~4094)

Security Type :

## > ***Setup In Hotspot Mode***

### **Step 0 : Access to WAS-103R**

- The default VLAN IP Address is between 192.168.100.1 to 192.168.107.1 and the IP Netmask is 255.255.255.0
- The administrator's PC need support VLAN. Set VLAN ID 100 and set IP address automatically. The administrator PC's will be get IP address 192.168.100.xx (More VLAN Setting see User Manual)
- Open Browser and enter <http://192.168.100.1> to access WMI of WAS-103R

 *The switches deployed under WAS-103R must support VLAN or VLAN Passthrough*

### **Step 1 : Mode Confirmation**

Ensure the Operating Mode is currently at Hotspot mode; the web management UI can be viewed at the **Status** section under the **System Overview** page.



The screenshot shows the Phicomm Wireless Hot Spot Gateway web interface. At the top, there is a navigation bar with links for System, HOTZONE, Wireless, Advance, Utilities, Status, and Reboot. Below this is a main menu with tabs for System Overview, Status, and WAN Information. Under System Overview, it displays the System Name (WAS-103R), Operating Mode (HOTSPOT mode), Firmware Version (Cen-HS-G2 V0.0.6 Beta Version), Firmware Date (2009-07-29 02:12:52), Location (default), Description (Indoor Wi-Fi Hotspot Gateway), System Time (1970/01/01 Thu 00:04:30), and System Up Time (04:30). Under WAN Information, it shows the Mode (Static IP).

### **Step 2 : Change Password**

Click **System -> Management** and then **Admin Configuration** page appears.

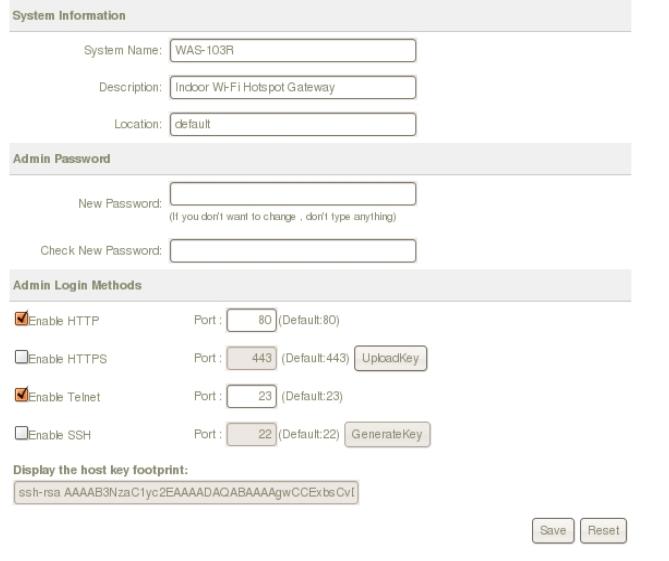
Enter a new administrator's password in the *New Password* field, and re-enter it again in the *Check New Password*(a maximum of 32 characters and no space allowed).

Click **Save** button to save the settings.



*For security concern, it is strongly recommended to change the administrator's password*

### **Admin Configuration**

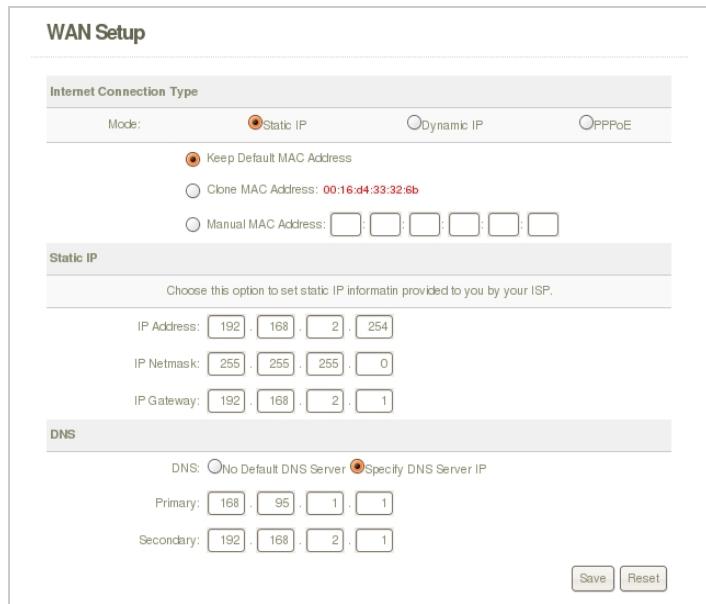


The screenshot shows the Admin Configuration page. It has three main sections: System Information, Admin Password, and Admin Login Methods. In System Information, the System Name is WAS-103R, Description is Indoor Wi-Fi Hotspot Gateway, and Location is default. In Admin Password, there are fields for New Password and Check New Password. In Admin Login Methods, there are checkboxes for Enable HTTP (Port 80), Enable HTTPS (Port 443, with an UploadKey button), Enable Telnet (Port 23), and Enable SSH (Port 22, with a GenerateKey button). A host key footprint is displayed below the SSH section. At the bottom right are Save and Reset buttons.

### **Step 3 : WAN Interface**

Click **System -> WAN** and then **WAN Setup** page appears.

Select a proper type of Internet Connection Type for WAN Interface from the following three available connections: **Static IP**, **Dynamic IP**, or **PPPoE**. Your ISP or network administrator can advise on the connection type available to you. Below depicts an example for **Static IP**. Click **Save** button to save the settings.



The screenshot shows the WAN Setup page. It has three main sections: Internet Connection Type, Static IP, and DNS. In Internet Connection Type, the Mode is set to Static IP. In Static IP, it shows IP Address (192.168.2.254), IP Netmask (255.255.255.0), and IP Gateway (192.168.2.1). In DNS, it shows Primary DNS (168.95.1.1) and Secondary DNS (192.168.2.1). At the bottom right are Save and Reset buttons.

## Step 4 : Wireless Interface

### • Wireless General Setup

Click **Wireless -> General Setup**, and then **Wireless General Setup** page appears.

Select desired wireless **Band**, **Transmit Rate** and **Channel** for wireless interface.

Click **Save** button to save the settings.

**Wireless General Setup**

General Setup

MAC address : 00:11:ab:66:00:02  
Band Mode : 802.11b+802.11g  
Transmit Rate Control : Auto  
Country : US  
Channel : 1  
Tx Power : Level 9

Save Reset

### • Virtual AP Setup

Click **Wireless -> Virtual AP Setup**, and then **VAP Setup** page appears. Click "Edit" on VAP0 of Virtual AP List, and then **VAP0 Configuration** page appears.

Select desired **ESSID**, **Security Type** and **VLAN ID** setting for VAP0. We select **VLAN0** for this step.

Click **Save** button to save the settings.

**VAP0 Configuration**

General

ESSID : AP00  
Hidden SSID :  Enable  Disable  
Client Isolation :  Enable  Disable  
WMM :  Enable  Disable  
IAPP Support :  Enable  Disable  
Maximum Clients : 32 (1 - 32, default 32)  
VLAN ID : VLAN 0  
Security Type : Disabled

Save Reset

 For security concern, it is strongly recommended to set up Security Type with WPA-SPK or WPA2-PSK for Virtual AP

## Step 5 : Generate HotZONE Ticket 's Passcode

Click **HotZONE -> Generate Ticket**, and then **Generate Ticket Setup** page appears. Select desired Ticket Database for HotZONE. Below depicts an example for **Generate Ticket**. Click "Generate" button to generate **File ID** "**00000001**" of Ticket Database

**Generate Ticket**

Passcode Type :  All Digit  All Letters  Mix Letter Digit  
Passcode Length : 8 (8 - 32)  
Timing Policy :  One Time  Multiple Times  Unlimited Until Lifetime  
Effective From : 7 / 30 / 2009 00 : 00 \* (MM/DD/YYYY hh:mm)  
Lifetime Limit : 7 / 31 / 2009 00 : 00 \* (MM/DD/YYYY hh:mm)  
Price : 1 Currency : EUR (Euro)  
Description : Ticket DB Test 1  
File ID : 00000001 8 hex digit, auto if no  
Quantity of Tickets : 100 (1-3069)

Generate

## Step 6 : Get Passcode on Ticket List

Click **HotZONE -> Ticket List**, and then **Ticket List** page appears. Click "Info" of File ID to view Passcode. Below depicts an example for **Passcode of File ID "00000001"**.

**Ticket List**

#	Passcode	Available Time	Open Time	Last Login Time
1	43133335	01:00:00	0	0
2	60337416	01:00:00	0	0
3	02707929	01:00:00	0	0
4	23859793	01:00:00	0	0
5	00763231	01:00:00	0	0
6	39425506	01:00:00	0	0
7	97876268	01:00:00	0	0
8	66554406	01:00:00	0	0
9	69212827	01:00:00	0	0
10	78923903	01:00:00	0	0

Page 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Refresh

## Step 7 : Create HotZONE With VLAN0

Click **HotZONE**, and then **HotZONE Management** page appears. Click "Edit" on **VAP0** of HotZONE List, and then **HotZONE0 Setup** page appears.

Select desired setting for HotZONE0. Below depicts an example for **Create HotZONE on VLAN0** and use **File ID "00000001"** of Ticket Database. Click **Save** button to save the settings.

The screenshot shows the 'HotZONE0 Setup' configuration page. It includes sections for 'Hotspot Management' (Auth Type: HotZONE With Tickets DB, Tickets DB: 00000001 checked), 'Bandwidth Control' (Upload: 512 kb, Download: 512 kb), and 'Hotspot Customize Setting' (Login Page Setting: Template Page checked, Color Template: Gray, Font Color: #4c4c4c).

## Step 8 : Restart System

Click **Reboot** to activate all settings configured so far. The Reboot message will appear on the screen during the restarting process.

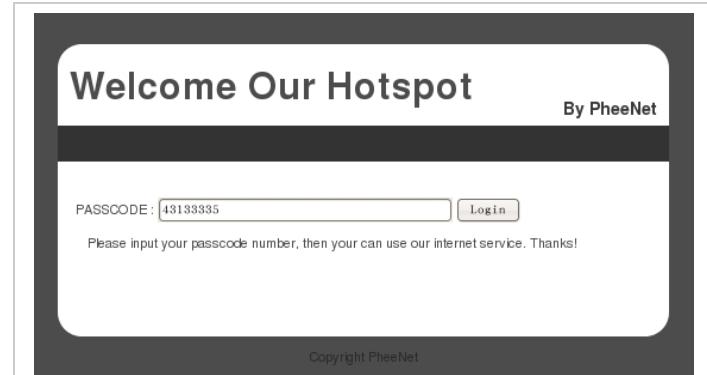
 Please do not interrupt the system until the System Overview Page appears.

## Step 9 : User Login

 WAS-103R supports NTP time synchronization only, it is strongly recommended to make sure the NTP server is reachable and alive

1. Connect a client device (e.g. Notebook, PC) with wireless interface to scan the configured VAP0's ESSID of WAS-103R (e.g. "**AP00**") and get associated with this ESSID.
2. The client device will obtain an IP Address automatically via VLAN0's DHCP from WAS-103R. Open a WEB Browser on a client device, access any URL, and then the **HotZONE 0 User Login Page** will appears.

3. Enter the Passcode of File ID "00000001" previously generated via Generate **HotZONE Ticket's Passcode**. Click "Login" button. (e.g. **43133335** ; you can get Passcode from Ticket List)



## Congratulation !

The Login Page will redirected to [www.pheenet.com](http://www.pheenet.com) and pop-on **Timer Page** after a client has successfully logged into WAS-103R and has been authenticated by the system.

The appearance of Login Timer Page means that WAS-103R has been installed and configured properly



For further configuration and information, please refer to the User's Manual.